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LETTER FROM THE EDITOR-IN-CHIEF

Comment on the editorial note by Baitz et XXI aliis

Walter Klöpffer

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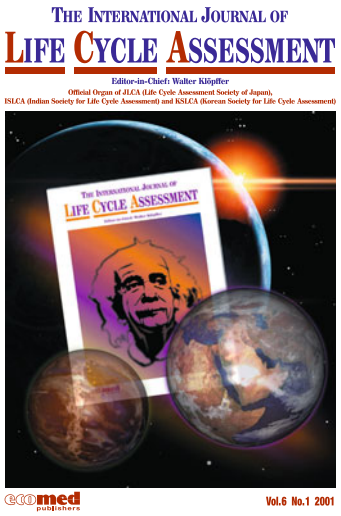
Abstract
Background The editor of this journal has been waiting for such a contribution of the life cycle assessment (LCA) practitioners and users for years, since the last debate of this kind dates back to beginning of the new century. It is remembered as the "Two planets debate" and coincided with the emergence of life cycle management, i.e. the use of life-cycle based methods in industry.
The "Two planets" This is a metaphor coined at the Society of Environmental Toxicology and Chemistry (SETAC) Europe case studies symposium 2000 and designates the fact that many academic LCA developers and the LCA practitioners seem to live in different spheres. The editorial note by Baitz et al. shows that this seems to be true still today. It is argued that the practitioners do not frequently enough participate in the working groups organized by SETAC, the UNEP/SETAC life cycle initiative and other international organizations and therefore cannot bring in the practical experience they have acquired in performing "real-life" LCA studies. The new LCIA methods, for instance, are often not accepted by the LCA practitioners and commissioners, since essential aspects were not recognised during method development.
Tentative proposal for a solution The solution of the problems pointed out in Baitz et al. cannot be to hinder the inhabitants of the academic planet in inventing ingenious new methods for reasons of academic freedom. It is proposed that new methods developed should be tested by practitioners in real-life LCA studies. Data asymmetries in comparative (i.e. most) LCA studies using more demanding methods may shift problems from LCIA to the LCI databases. With regard to the financing of such studies, it should be remembered that practitioners do their living by performing LCAs and other studies and have to calculate a full overhead in addition to the pure working costs.

Keywords Commissioners · LCIA methods · Practitioners · Users of LCA · USEtox



Dear readers,
I very much welcomed the manuscript submitted by Martin Baitz on July 4, 2012. The cover mail reminded me that we had already discussed such a paper a year ago. This manuscript has been accepted as an editorial note and published with a few, if any, changes on July 31 online first (Baitz et al. 2012). Why was I so excited about this paper? The simple answer is that I have been waiting for such a contribution of the life cycle assessment (LCA) practitioners and users (in a broad sense) for years. The last general debate we

W. Klöpffer (✉)
LCA Consult & Review,
Am Dachsberg 56E,
60435 Frankfurt am Main, Germany
e-mail: walter.kloepffer@t-online.de

had in our journal dates back to the dawn of the new century/millennium and was triggered by the advent of life cycle management (Klöpffer and Heinrich 2002; Heinrich and Klöpffer 2002). This discussion, which ended in the establishment of a life cycle management (LCM) section, was preceded by a related one known as the "Two planet" debate (Klöpffer and Heinrich 2001). This metaphor had been put forward by Sarah Cowell (UK, now Sarah McLaren, NZ) during the 8th LCA Case study symposium in November 2000 (Rebitzer 2001). It depicts exactly the same discrepancy between academic LCA researchers on the one hand and LCA users and practitioners on the other, which is at the root of the editorial note discussed here.

Where does this discrepancy come from? Evidently, our colleagues at universities and related academic institutions, mainly professors, PhD students and post docs, have primarily the duty to develop up-to-date methods including examples to show that the new methods work in principle. Conversely, the users of LCA methods in industry, applied research institutes and consultancies need well approved and robust methods whose data needs do not surpass realistic—i.e., achievable within the limits of time and funds available—conditions. This second point has been clearly and convincingly presented in the editorial note by Baitz et al. (2012).

The members of the academic "planet" meet frequently within the framework of programmes coordinated by Society of Environmental Toxicology and Chemistry (SETAC), the United Nations Environment Programme/SETAC life cycle initiative, and other national and supranational organisations. These meetings are not often attended by the inhabitants of the second planet. The networking, a very welcome side-effect of the meetings which are often organised "back-to-back" with SETAC or LCM congresses, is the privilege of the academic planet. The result is that many new methods are not accepted in the praxis of LCA. Most "real life" LCAs use the limited set of impact categories, sometimes since the new methods require more data than available or cause inconsistencies in the comparative (i.e., most) LCAs due to data asymmetries. Any new "building" at the "permanent building site" (©Klöpffer 2011) Life cycle impact assessment (LCIA) requires—to stay in the picture—a lot of new bricks in life cycle inventory analysis and the generic data bases used to quantify the background processes.

What could be done to improve this situation? Certainly, we should not discourage the innovative and creative impetus of young academia. Creative people are not and should never become functionaries of a society so evidently unable to cope with the most urgent environmental, economic, and social problems. On the other hand, methods wanted for improving LCA have to be selected out of the proposed ones. After publication of a new method (preferably of course in this journal), a further step should follow: a broad testing with real product systems. This should be done by the practitioners and financed either by industry associations or governmental and supragovernmental organisations. One point has to be clear, however: private consultants and research institutes do their living by performing LCAs and similar studies on a contractual basis and necessarily have to ask for a full overhead in addition to the net labor costs. Having spent 39 years in this kind of business, I can say that it is not always easy to keep a working group alive.

It should be mentioned that the procedure recommended above has been tried in promoting the human and ecotoxicity LCIA method "USEtox" (Rosenbaum et al. 2008; Jørgensen and Hauschild 2011). The data asymmetries observed in aluminium containing vs. plastic packaging are at least partly due to the obsolete European plastics data (compared to the Al data which are updated in 5-year intervals (Leroy 2009)). This demonstrates that improved LCIA methods request improved databases.

Finally, I would like to thank the authors of the current editorial note (Baitz et al. 2012) for their clear presentation and ask them to continue this "planetary" dialogue. Practitioners and other users should bring in their knowledge with more doggedness, even if frequently hindered by confidentiality toward their clients. I remember that I suggested in the early time of this journal that an "International Society for LCA Practitioners" should be founded in order to complement the activities by SETAC and bring in their practical experience (Klöpffer 1997). The very useful indicator cumulative energy demand would perhaps not have been neglected by ISO if practitioners had more influence. Last but not least, it should be remembered that the LCA (long before this name was coined) was invented by practitioners around 1970 (Hunt and Franklin 1996).

I also hope that "letters to the editor" (so sorry that I could not use this form) on the topics raised will also come from the LCA research side and perhaps past and potential commissioners may also wish to join the discussion.

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